

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Pearson BTEC
Level 3 Nationals
Extended
Diploma

Centre Number

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Learner Registration Number

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Thursday 17 January 2019

Morning (Time: 1 hour 30 minutes)

Paper Reference **31493H**

Health and Social Care

Unit 3: Anatomy and Physiology for Health and Social Care

You must have:

Calculator (optional)

Total Marks

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Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and learner registration number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- You may use a calculator.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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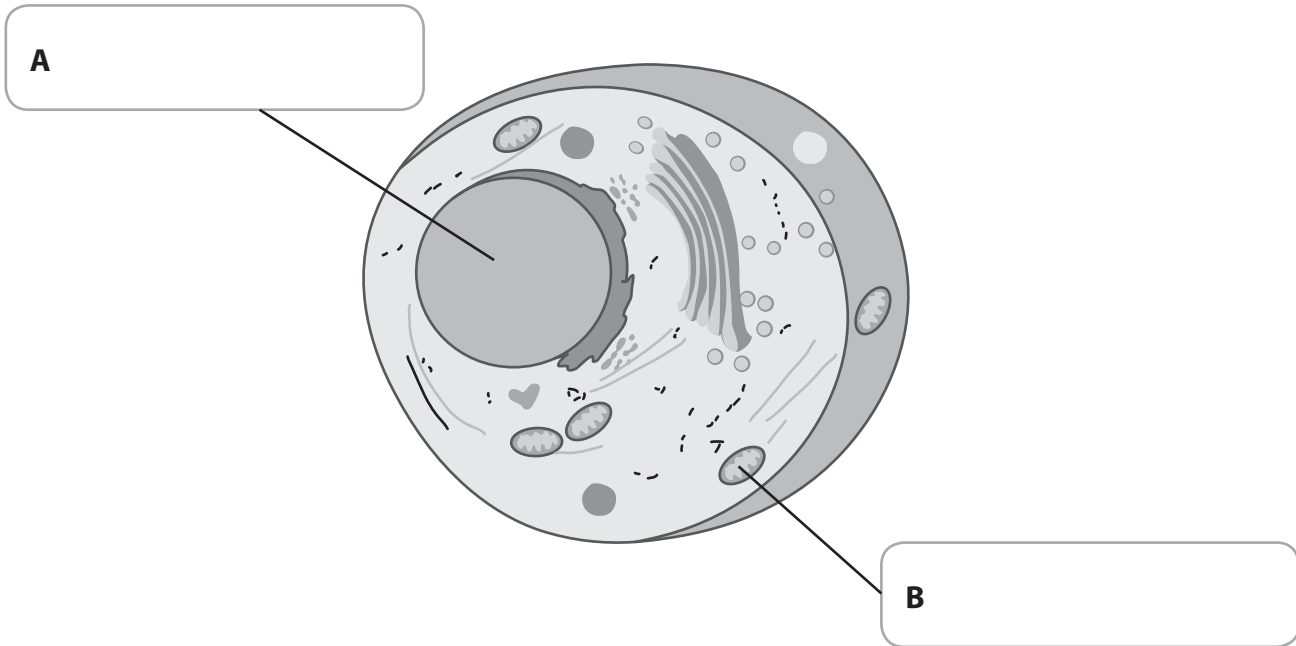
Pearson

Answer ALL questions. Write your answers in the spaces provided.

1 (a) Identify structures A and B on the diagram of the cell below.

(2)

Structure of a Typical Cell



(b) Outline the role of the following in the cell:

(4)

Golgi apparatus

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Centrioles

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(c) Describe the **two** processes of cell division.

(4)

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(Total for Question 1 = 10 marks)

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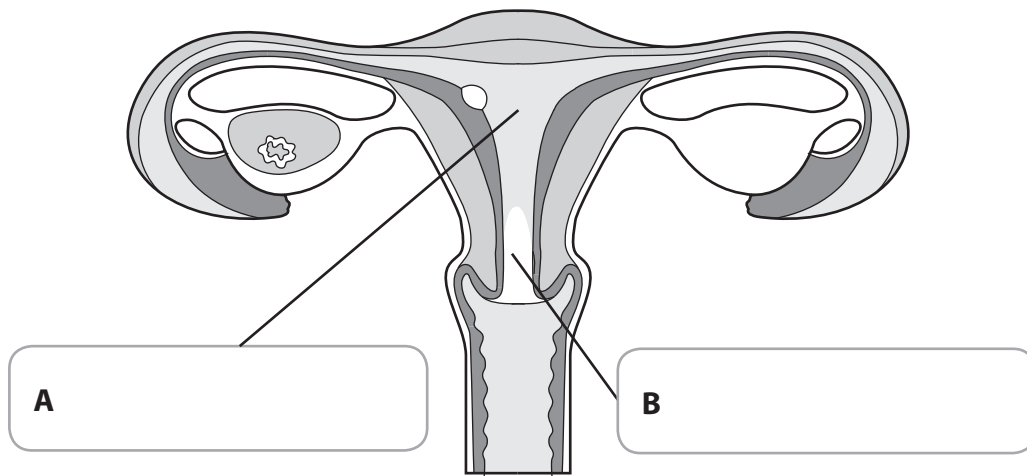
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2 (a) Identify structures A and B on the diagram of the female reproductive system.

(2)



(b) Describe **two** tests for genetic disorders in pregnancy.

(4)

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(c) Explain **two** ways endometriosis can prevent a woman getting pregnant.

(4)

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(Total for Question 2 = 10 marks)

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3 (a) Describe the function of the central and peripheral nervous systems.

(4)

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(b) Outline **two** types of muscle contraction.

(4)

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(c) Describe how the brain coordinates how someone picks up an object.

(4)

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(d) Describe the symptoms and causes of multiple sclerosis.

(6)

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(Total for Question 3 = 18 marks)



4 (a) Outline how antagonistic muscles make a skeleton move.

(2)

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(b) Describe the structure of striated muscle.

(4)

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(c) Describe the effect of muscular dystrophy on the body.

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(Total for Question 4 = 12 marks)

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5 (a) Describe **two** ways hormones control blood glucose levels.

(4)

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(b) State **four** functions of the kidneys.

(4)

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(c) Explain **two** effects of dehydration on the body.

(4)

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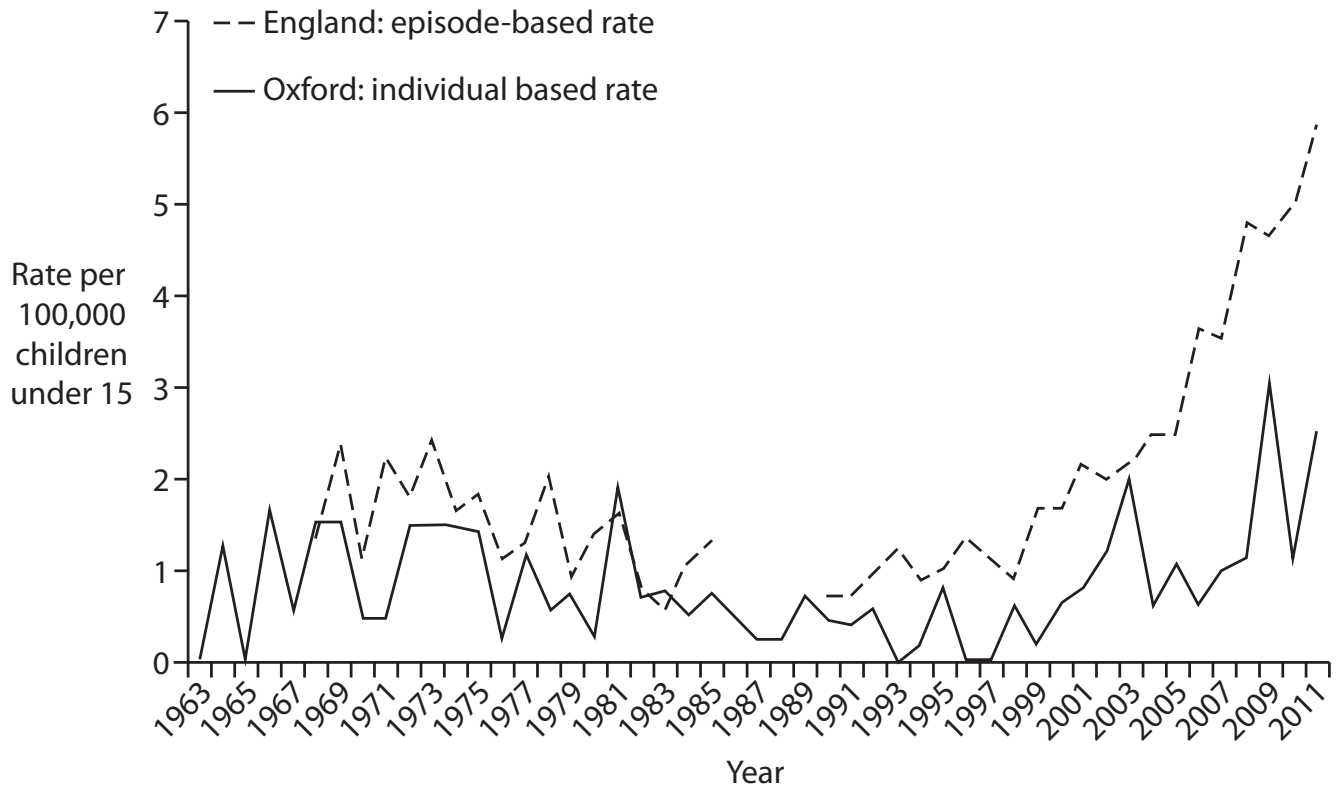
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P 5 3 8 6 6 A 0 1 1 1 6

6 The graph shows data for the incidence of rickets in England and Oxford since 1963.

The incidence of rickets in England and Oxford since 1963



Rickets in children younger than 15 years: age-standardised rates per 100,000 younger than 15 years in England and in Oxford.

For England there was no national data for 1986-90.

(Source: The Lancet)

(a) Compare the patterns of data for England and Oxford shown in the graph.

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Acknowledgement:

[www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)60211-7/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60211-7/fulltext)

